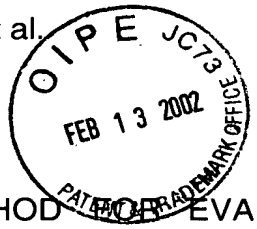
2-15-2 Receipt

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE



In re Application of: Sporer et al. **Docket No.: SCHO0057**

Serial No. : 09/889,697 **Art Unit:** 2644

Filed: October 19, 2001 **Examiner:** Unassigned

Title: SYSTEM AND METHOD FOR EVALUATING THE QUALITY OF MULTI-CHANNEL AUDIO SIGNALS

February 13, 2002

Assistant Commissioner for Patents
Application Processing Division
Customer Correction Branch
Washington, DC 20231

REQUEST FOR A CORRECTED FILING RECEIPT

Dear Sir:

Applicant, by his attorney, requests correction of the Official Filing Receipt for the above-referenced patent application. The title is incorrect. Please change the title from "System and Method for evaluatting the quality of multi-channel audiosignals" to - -System and Method for Evaluating the Quality of Multi-Channel Audio Signals--. The words 'evaluating' and 'audio signals' are misspelled. A copy of the application's first page, the cover sheet for the Clean Copy After Annotations, and a copy of the original Filing are enclosed.

Respectfully submitted,

Michael A. Glenn
Reg. No. 30,176

Customer No. 22862

UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS
UNITED STATES PATENT AND TRADEMARK OFFICE
WASHINGTON, D.C. 20231
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APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	DRAWINGS	TOT CLAIMS	IND CLAIMS
09/889,697	10/19/2001	2644	1008	SCHO0057	3	21	2

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CONFIRMATION NO. 8669
FILING RECEIPT
OC000000007382769

Date Mailed: 01/30/2002

Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Customer Service Center. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).**

Applicant(s)

Thomas Sporer, Fuerth, GERMANY;
Roland Bitto, Nuernberg, GERMANY;
Karlheinz Brandenburg, Erlangen, GERMANY;

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Technology Center 2600

Domestic Priority data as claimed by applicant

THIS APPLICATION IS A 371 OF PCT/EP99/09979 12/15/1999

Foreign Applications

Projected Publication Date: Not Applicable, filed prior to November 29,2000

Non-Publication Request: No

Early Publication Request: No

Title

System and method for evaluatting the quality of multi-channel audiosignals

incorrect incorrect

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Preliminary Class

381

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Date: 2/7/02

6.

National Phase of PCT/EP99/09979 in U.S.A.
Title: System and method for evaluating the quality of multi-channel audio signals → correct
Applicants: SPORER, Thomas; BITTO, Roland; BRANDENBURG Karlheinz

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Final version of PCT/EP99/09979 for the prosecution at the USPTO to be filed as Clean copy after annotations made

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System and method for evaluating the quality of multi-channel audio signals

Field of the Invention

The present invention relates to quality evaluation and in particular to a System and method for evaluating the quality of multi-channel audio signals.

Background of the Invention and Prior Art

Since listening-adapted digital coding methods have been standardized, they have been used to an increasing extent. Examples for such cases of use are the digital compact cassette, the minidisk, digital terrestrial radio broadcasting and the digital video disk. When coding is effected by means of listening-adapted coding methods, artificial products or artifacts may, however, occur, which did not occur in analog audio signal processing.

For judging or evaluating a specific encoder, listening test with test persons were carried out in the past. Although the average result provided by such listening tests is comparatively reliable, there is still a subjective component. Furthermore, listening tests executed with a certain number of test persons are comparatively complicated and therefore comparatively expensive. Hence, measurement methods have been developed for a listening-adapted evaluation of audio signals.

Such a measurement method is described e.g. in DE 196 47 399 C1. The method of listening-adapted quality evaluation described in this publication models all non-linear hearing effects onto a reference signal as well as onto a test signal. The listening-adapted quality evaluation is carried out by means of a comparison in the cochlear domain. In so doing, the excitations caused in the ear by the test signal and by the reference signal are compared. For this purpose, both the audio reference signal and the audio test signal are divided into their spectral components by a filter bank. By means of a large number of filters whose frequencies overlap, a sufficient resolution with respect to time as well as frequency is guaranteed. Hence, a mono audio test signal, which is derived from an audio reference signal by coding and subsequent decoding, can be evaluated with regard to its quality.

CERTIFICATE OF EXPRESS MAIL UNDER 37 CFR 1.10

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A. Fabris

Antoinette Fabris

Attorney Docket No: SCHO0057

Items attached:

- Request for Corrected Filing Receipt
- Copy of Application's first page
- Cover sheet from Clean Copy After Annotations
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Bib Data Sheet

CONFIRMATION NO. 8669

SERIAL NUMBER	FILING DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
09/889,697	10/19/2001 RULE	381	2644	SCHO0057

APPLICANTS

Thomas Sporer, Fuerth, GERMANY;
Roland Bitto, Nuernberg, GERMANY;
Karlheinz Brandenburg, Erlangen, GERMANY;

** CONTINUING DATA **********

THIS APPLICATION IS A 371 OF PCT/EP99/09979 12/15/1999

** FOREIGN APPLICATIONS **********

IF REQUIRED, FOREIGN FILING LICENSE GRANTED
** 02/21/2002

		STATE OR COUNTRY	SHEETS DRAWING	TOTAL CLAIMS	INDEPENDENT CLAIMS
Foreign Priority claimed	☐ yes ☐ no	GERMANY	3	21	2
35 USC 119 (a-d) conditions met	☐ yes ☐ no ☐ Met after Allowance				
Verified and Acknowledged	Examiner's Signature Initials				

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TITLE

System and method for evaluating the quality of multi-channel audio signals

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1008	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:	☐ All Fees ☐ 1.16 Fees (Filing) ☐ 1.17 Fees (Processing Ext. of time) ☐ 1.18 Fees (Issue) ☐ Other _____ ☐ Credit